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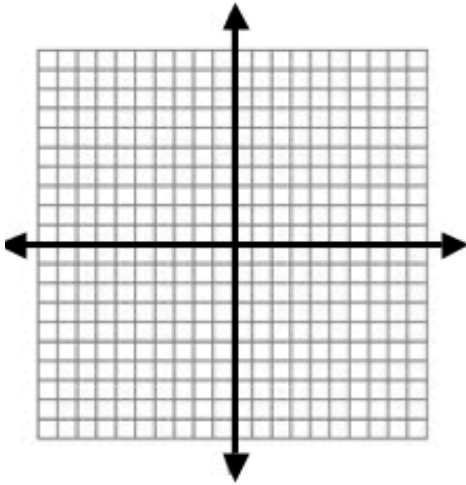
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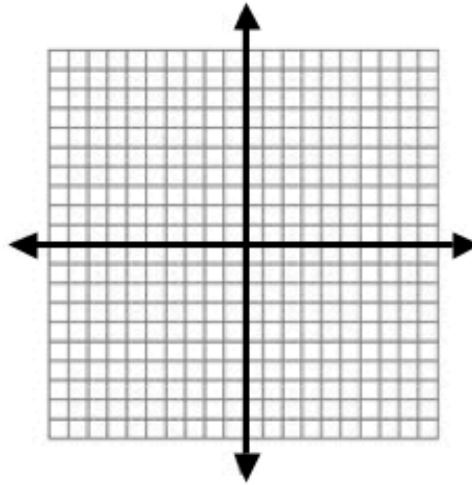
Semester 2 Exam Review- Chapter 7**7.1 Solving Systems by Graphing**

Solve each system of equations using the Graphing Method.

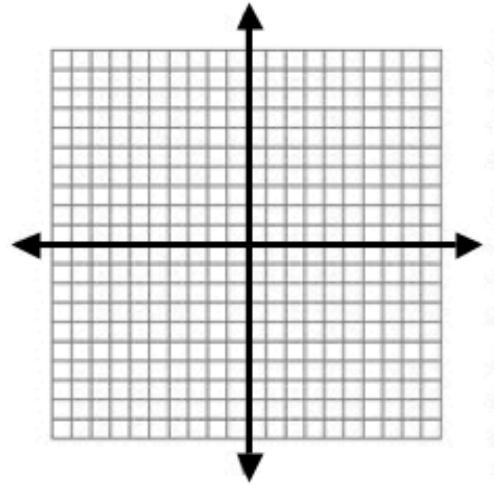
1. $2x - y = -2$
 $4x - y = -6$



2. $2x + y = -3$
 $y = -2x + 5$



3. $-8x + 2y = 0$
 $y = 4x$

**7.2 Solving Systems by Substitution**

Solve each system of equations using the Substitution Method.

4. $-x + y = 1$
 $2x + y = -2$

5. $2x + 2y = 3$
 $x - 4y = -1$

6. $x - 2y = 5$
 $-2x + 4y = 2$

7.3 Solving Systems by Elimination (a.k.a. Linear Combinations)

Solve each system of equations using the Elimination Method.

7. $2r = 7 - 5p$
 $4p - 16 = r$

8. $3x = -6y + 12$
 $-x + 3y = 6$

9. $2u = 4v + 8$
 $3v = 5u - 13$

7.5 Special Types of Systems

Solve the system and tell how many solutions the system has.

10.
$$\begin{aligned} -7x + 7y &= 7 \\ 2x - 2y &= -18 \end{aligned}$$

11.
$$\begin{aligned} 2x + y &= -4 \\ 4x - 2y &= 8 \end{aligned}$$

12.
$$\begin{aligned} 15x - 5y &= -20 \\ -3x + y &= 4 \end{aligned}$$

7.6 Solving Systems of Linear Inequalities

Graph each system of inequalities.

$$y \leq -\frac{5}{2}x + 4$$

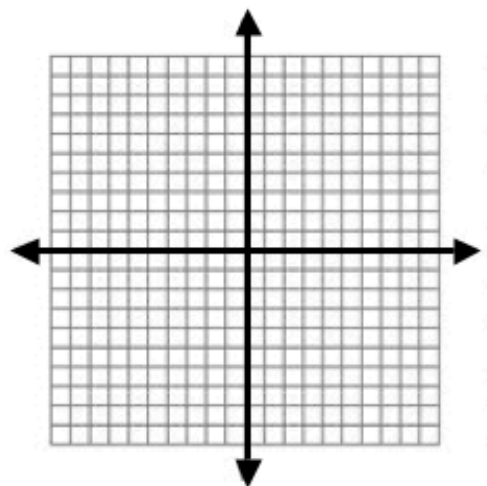
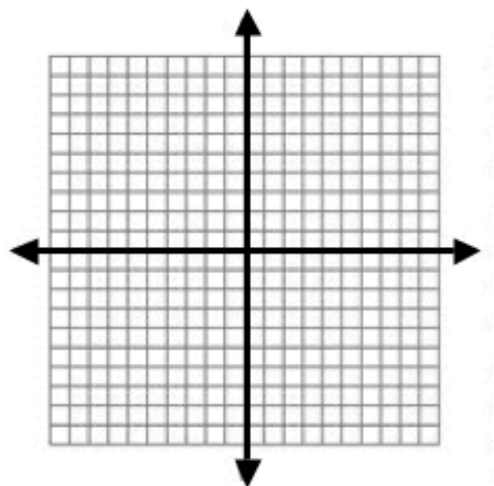
13.

$$y > -\frac{1}{2}x - 2$$

$$y \leq \frac{1}{2}x + 2$$

14.

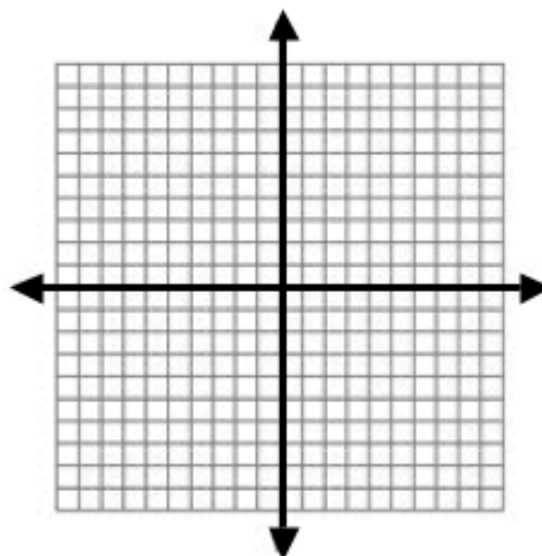
$$y \geq \frac{1}{2}x - 2$$



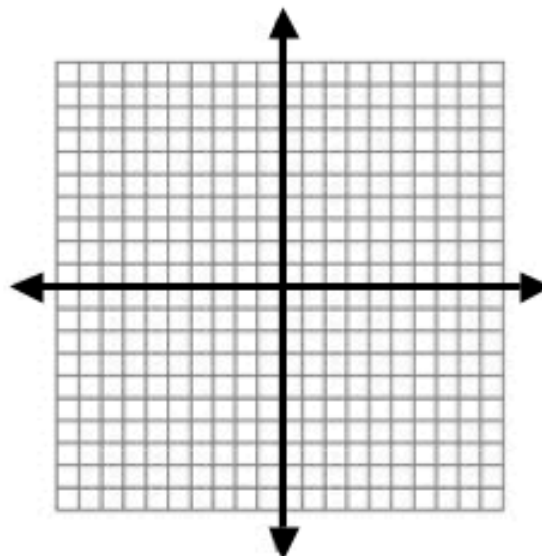
7.6 Solving Systems of Linear Inequalities

Graph each system of inequalities.

15. $2x + y \geq 2$
 $x \leq 3$
 $y < -2$



16. $x \geq 1$
 $x - 2y \leq 3$
 $3x + 2y \geq 9$
 $x + y < 6$



Problem Solving with Systems

Write and solve a system for each situation.






17. Sabre Inc. sells two types of fax machines. They charge \$150 for one of the machines and \$225 for the other. If the company sold 22 fax machines for a total of \$3900 last month, how many of each type were sold?

18. A quilt maker sews both large and small quilts. A large quilt requires 8 yards of fabric while the small quilt requires 3 yards of fabric. How many of each size quilt did she make if she used a total of 90 yards of fabric to make 15 quilts?

19. A museum charges \$5 for children and \$8 for adults. One day, the museum collected \$439 for 71 paying customers. How many children and how many adults visited the museum that day?

20. A grandfather poses this riddle to his grandchildren: "I have only dimes and quarters in my pocket. The coins are worth \$3.85. I have 14 fewer quarters than dimes. How many of each type of coin do I have?" Solve the grandfather's riddle.

FOR ADDITIONAL CHAPTER 7 REVIEW PLEASE REFER TO ANY OR ALL OF THE FOLLOWING:

-  Your classroom notes and examples
-  Corresponding book sections
-  Chapter 7 Review on pages 440 - 442
-  Chapter 7 Test on page 443
-  Chapter 7 Extra Practice Problems on page 803

STUDENTS CAN CHECK ANSWERS IN THE BACK OF THE BOOK. IF ANSWERS ARE NOT AVAILABLE IN THE BACK OF THE BOOK, STUDENTS ARE ENCOURAGED TO USE THE TEACHER BOOK TO CHECK ANSWERS BEFORE TAKING THE SEMESTER EXAM.